

Environmental Water Account EIS/EIR

GLOSSARY OF TECHNICAL TERMS

Term Definition

acre-foot	The volume of water that would cover 1 acre to a depth of 1 foot, or 325,851 gallons of water. On average, 1 acre-foot could supply one to two households with water for a year. A flow of 1 cubic foot per second for a day is approximately 2 acre-feet.
action	A structure, operating criteria, program, regulation, policy, or restoration activity that is intended to address a problem or resolve a conflict in the Bay-Delta system.
adequately conserved	To use, and the use of, conservation methods and procedures that are adequate to protect and perpetuate a species of fish, plant, or wildlife within the area of analysis, taking into consideration the whole of CALFED, including the direct and indirect effects of CALFED actions.
AFRP	Anadromous Fish Restoration Program (AFRP), part of the Central Valley Project Improvement Act (CVPIA). The AFRP identified instream and Delta flows needed for recovery of anadromous fish.
alternative	A collection of actions or action categories assembled to provide a comprehensive solution to problems in the Bay-Delta system.
anadromous fish	Fish that spend a part of their life cycle in the sea and return to freshwater streams to spawn.
aquifer	Underground layer of porous rock, sand, etc. that contains water.
at-risk native fish species	At-risk native fish species include: Central Valley fall and late fall-run Chinook salmon, Sacramento River winter-run Chinook salmon, Central Valley spring-run Chinook salmon, Central Valley steelhead, Delta smelt, Sacramento splittail, and Green Sturgeon.
b(2) water	Statutory mandate to manage the water dedicated to fish and wildlife purposes pursuant to Section 3406(b)(2) of the CVPIA.

Banks Pumping Plant	The State Water Project (SWP) export pumping plant in the south Delta. The plant is located downstream of Clifton Court Forebay.
baseline level of fishery protection	Fishery protection consisting of the existing regulations and existing operational flexibility. This baseline level of fishery protection consists of the biological opinions on winter-run salmon and delta smelt, 1995 Delta Water Quality Control Plan as implemented by SWRCB Decision 1641 and Order 2001-05, and 800,000 acre-feet of CVP Yield pursuant to Section 3406(b)(2) water, combined with the assets of a fully funded Ecosystem Restoration Program (ERP).
Bay-Delta	The entire estuary system of the San Francisco Bay, Sacramento-San Joaquin Rivers, and Delta.
best management practices	A water conservation measure that the California Urban Water Conservation Council agrees to implement among member agencies. The term is also used in reference to water quality standards and watershed management activities.
biological opinion	A written statement setting forth the opinion of the USFWS or the NOAA Fisheries as to whether or not a federal action is likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of critical habitat. See 16 USCA 1536(b).
brackish water	Water that contains more sea salts than fresh water, but less than the open sea.
CALFED Bay-Delta Program	A consortium of 15 State and Federal agencies with management or regulatory responsibilities in the Bay-Delta.
candidate species	Any species being considered by the U.S. Secretary of the Interior or Secretary of Commerce for listing as an endangered or a threatened species, but not yet the subject of a proposed rule (see 50 CFR 424.02), or any species accepted as a candidate species by the California Department of Fish and Game (CDFG) pursuant to Fish and Game Code Section 2074.2.
Central Valley Project (CVP)	A federally operated water management and conveyance system that provides water to agricultural, urban, and

	industrial users in California. The CVP was originally authorized by legislation in 1937.
Central Valley Project Improvement Act	Public Law 102-575, Title 34, 106 Stat. 4600. Federal legislation, signed into law on October 30, 1992, that Modified the operations of the Federal CVP. The CVPIA made fish and wildlife objectives equal to agricultural, municipal, industrial, and hydropower water uses.
California Endangered Species Act (CESA)	California legislation that prohibits the “take” of plant and animal species designated by the CDFG as either endangered or threatened. Take includes hunting, pursuing, catching, capturing, killing, or attempting such activity. CESA provides the CDFG with administrative responsibilities over the plant and wildlife species listed under the State act as threatened or endangered. CESA also provides CDFG with the authority to permit the take of State-listed species under certain circumstances. See Fish and Game Code Section 2050-2116.
California Environmental Quality Act (CEQA)	California legislation that requires State, regional, and local agencies to prepare environmental impact assessments for proposed projects that will have significant environmental effects and to circulate these documents to other agencies and the public for comment before making decisions. CEQA requires that the lead agency make findings for all significant impacts identified in the environmental impact report. The lead agency must propose mitigation to reduce environmental impacts to a less-than-significant level unless the mitigation is infeasible or unavailable and there are overriding considerations that require the project to be approved. See Public Res. Code Sections 21001.1, 21002, 21080; Guidelines 15002(c).
call dates	Dates in EWA contracts that represent the last date that the EWA agencies could decide whether or not to begin each transfer.
carriage water	Additional flows released during export periods to ensure maintenance of water quality standards and assist with maintaining natural outflow patterns in Delta channels. For instance, a portion of transfer water released from upstream of the Delta intended for export from south Delta would be used for Delta outflow.
channel islands	Natural, unleveed land masses within Delta channels that are typically good sources of wildlife habitat.

Clifton Court Forebay	An SWP water body in the delta used to regulate flows to the Banks Pumping Plant.
conceptual model	An explicit description of the critical cause-and-effect pathways in ecosystem function. A conceptual model includes a summary of current knowledge and hypotheses about ecosystem structure and function, and highlights key uncertainties where research might be necessary. Alternative or competing conceptual models illustrate areas of uncertainty, paving the way for suitably-scaled experimental manipulations designed both to restore and explore the ecosystem. Conceptual models also help to define monitoring needs, and the basis for quantitative modeling.
conflicts at the pumps	Presence of fish at the Delta export facilities in numbers representing critical thresholds (dictated by Biological Opinions) necessitating pumping reductions that interfere with water supply reliability, resulting in conflicts between Central Valley Project and State Water Project operations and fishery management.
conjunctive use	The operation of a groundwater basin in combination with a surface water storage and conveyance system. Water is stored in the ground water basin for later use in place of or to supplement surface supplies. Water is stored by intentionally recharging the basin during years of above-average surface water supply.
conserve, conserving, conservation	To use, and the use of, all methods and procedures necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to the Federal and California Endangered Species Acts are no longer necessary. These methods and procedures include, but are not limited to, all activities associated with scientific resources management, such as research, census, law enforcement, habitat acquisition, restoration and maintenance, propagation, live trapping, and transplantation. In the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, the methods and procedures may include regulated taking.
conservation measures	Actions to benefit or promote the recovery of listed species that are included by the Federal agency as an integral part of the proposed action. These actions will be taken by the Federal agency or applicant, and serve to minimize or

	compensate for, project effects on the species under review. These may include actions taken prior to the initiation of consultation, or actions which the Federal agency or applicant have committed to complete in a biological assessment or similar document
consumptive use	Science based evapotranspiration rate that represents the total amount of water used for vegetative growth, transpiration, or plant tissue production, plus the unavoidable evaporation of soil moisture and intercepted precipitation.
“contribute to recovery”	Also referred to as ‘r’, a CALFED goal assigned to evaluated species where CALFED actions affect only a limited portion of the species range and/or CALFED actions have limited effects on the species. The goal of contributing to a species’ recovery means that CALFED will undertake the actions under its control and within its Multi-Species Conservation Strategy Problem Area and scope that are necessary for the species to recover.
conveyance	A pipeline, canal, natural channel, or other similar facility that transports water from one location to another.
conveyance loss	Transfer water lost to seepage and evaporation.
covered species	At a programmatic level, species selected from the evaluated species that would be adequately conserved (State requirement for State-covered species) and for which programmatic CALFED actions would not cause jeopardy and/or adversely affect designated critical habitat (Federal requirement for federally covered species).
critical habitat	Designation for federally listed species. Consists of: (1) the specific areas within the geographical area occupied by the species at the time it is listed in accordance with the provisions of Section 4 of the Federal ESA (16 USCA 1533), on which are found those physical or biological features (constituent elements) that are: (a) essential to the conservation of the species and (b) may require special management considerations or protection; and (2) specific areas outside the geographical area occupied by the species at the time it is listed in accordance with the provisions of Section 4 of ESA (16 USCA 1533), upon a determination by the Secretary that such areas are essential for the conservation of the species. (16 USCA 1532(5)(A).) Designated critical habitats are described in 50 CFR 17 and 50 CFR 226.

crop idling	Allowing previously irrigated agricultural land to temporarily lie idle (fallowing) for a variety of purposes for a period of time.
crop substitution	Farmers plant a crop with lower water requirements than the previous crop.
cumulative impact	The incremental impact or effect of the action together with impacts of past, present, and reasonable foreseeable future actions (regardless of the source of these other actions).
Delta	The Delta lies at the confluence of the Sacramento and San Joaquin Rivers and serves as the major hub for the operations of the SWP and CVP.
Delta Cross Channel	Existing gated structure and channel connecting the Sacramento River at Walnut Grove to Snodgrass Slough and thence to the North Fork of the Mokelumne River. The facility was constructed as part of the Central Valley Project to control movement of Sacramento River water into the central Delta and to the south-Delta export pumps. Operating criteria currently require the gates to be closed for specific periods to keep downstream-migrating fish in the Sacramento River and to prevent flooding of the central Delta.
Delta facilities	CVP and SWP facilities in the Delta that collect and convey water through the Delta.
Delta inflow	The combined water flow entering the Delta at a given time from the Sacramento River, San Joaquin River, and other tributaries.
Delta islands	Islands in the Sacramento-San Joaquin Delta protected by levees. Delta islands provide space for numerous functions including agriculture, communities, and important infrastructure such as transmission lines, pipelines, and roadways.
Delta outflow	The net amount of water (not including tidal flows) at a given time flowing out of the Delta towards the San Francisco Bay. The Delta outflow equals Delta inflow minus the water used within the Delta and the exports from the Delta.
Delta pumps	see “export pumps”

Delta pumping capacity	Delta pumping capacity is not only limited by the size of the pumps, but also by regulatory limits on exports, e.g., fish protection requirements, export/inflow (E/I) ratio, and water quality requirements.
demand limited	No contractors want any more water than they are currently receiving, and storage facilities and/or conveyance facilities are full.
direct mortality	The direct loss of fish associated with facilities (forebay, fish screens, and salvage facilities) for the south Delta export pumps. This direct mortality is a portion of the total fish mortality resulting from operation of the export pumps (see indirect mortality).
diversions	The action of taking water out of a river system or changing the flow of water in a system for use in another location.
drought conditions	A time when rainfall and runoff are much less than average. One method to categorize annual rainfall is as follows, with the last two categories being drought conditions: wet, above normal, below normal, dry critical.
dual conveyance	A means of improving conveyance across the Delta by both improving through-Delta conveyance and isolating a portion of conveyance from Delta channels.
ecosystem	A recognizable, relatively homogeneous unit that includes organisms, their environment, and all the interactions among them.
ecosystem restoration	A term sometimes used to imply the process of recreating the structural and functional configurations of an ecosystem to that present at some agreed to time in the past. Because the structure and function of many elements of the Bay-Delta ecosystem have been severely disrupted and cannot be feasibly restored to a specified historic condition, within the context of CALFED, ecosystem restoration is more realistically defined as the process by which resource managers ensure that the capacity of the ecosystem to provide ecological outcomes valued by society is maintained, enhanced, or restored.
Ecosystem Restoration Program (ERP)	CALFED Program designed to restore or mimic ecological processes and to increase and improve aquatic and terrestrial habitats that support stable, self-sustaining populations. CALFED established the Environmental

Water Program to carry out flow-related objectives within the ERP. The ERP has the potential to reduce or eliminate conflicts at the Delta pumps.

Emergent	A plant rooted in shallow water that has most of its vegetative growth above water.
endangered species (CESA)	Any species listed as endangered under the California Endangered Species Act. Endangered species are native California species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that has been determined by the CDFG to be in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, exploitation, predation, competition, or disease. See California Fish and Game Code Section 2062.
endangered species (ESA)	Any species listed as endangered under the Federal ESA. Endangered species are any species (including subspecies or a qualifying distinct population segment) that is in danger of extinction throughout all or a significant portion of its range. See 16 USCA 1532(6).
endemic species	A native species or subspecies confined naturally to a particular, and usually restricted, area or region.
entrainment	The process of drawing fish into diversions along with water, resulting in the loss of such fish.
environmental impact report	A detailed written report, required by the CEQA, analyzing the environmental impacts of a proposed action, adverse effects that cannot be avoided, alternative courses of action, and cumulative impacts.
environmental impact statement	A detailed written statement, required by Section 102(2)(c) of the National Environmental Policy Act (NEPA), analyzing the environmental impacts of a proposed action, adverse effects that cannot be avoided, alternative courses of action, short-term uses of the environment versus the maintenance of long-term productivity, and any irreversible and irretrievable commitment of resources.
ephemeral stream	A seasonal stream that flows only part of the year.
estuarine fish	Fish that spend a part of their life cycle in an estuary.
estuary	A water body passage where ocean water mixes with river water.

evaluated species	A species within the Multi-Species Conservation Strategy (MSCS) Focus Area that is listed under Federal law as threatened or endangered or California listed as rare, threatened, endangered, or fully protected; could become federally or California listed as threatened or endangered under California or Federal law during the term of CALFED implementation and could be adversely affected by CALFED actions; or could be adversely affected by CALFED actions within a substantial portion of the species' range or important habitat.
EWA assets	Alternative sources of project water supply which will be used to augment streamflows and Delta outflows, to modify exports that provide fishery benefits, and to replace the regular project water supply interrupted by changes in project operations. The replacement water will compensate for reductions in deliveries relative to existing facilities, project operations, and the regulatory baseline that result from EWA actions. EWA assets are managed by USFWS, NOAA Fisheries, and CDFG in coordination with the CALFED Operations Group.
EWA tools	The asset acquisition (stored reservoir water, groundwater substitution, crop idling, stored groundwater purchase) and management options (source shifting, borrowed Project water), including variable assets and functional equivalency to the CALFED ROD that are available to the EWA agencies.
export	Water diversion from the Delta for use in the Export Service Area.
Export-Inflow Ratio (E-I Ratio)	This requirement presently limits Delta exports by the State and Federal water projects to a percentage of Delta inflow.
export pumps	CVP and SWP pumping plants in the southern portion of Delta - the Tracy Pumping Plant and the Harvey O. Banks Delta Pumping Plant, respectively. These large pumps export water to urban and agricultural water users in the Export Service Area.
facultative	Not limited to a specific condition; having the ability to live under varying conditions, such as in wetland and upland habitats.
Federal Endangered Species Act (ESA)	Federal legislation that requires Federal agencies, in consultation with the USFWS and NOAA Fisheries, to

ensure that their actions do not jeopardize the continued existence of endangered or threatened species or result in the destruction or adverse modification of the critical habitat of these species. The ESA recognizes the value to the nation of species in danger of, or threatened with, extinction. The act requires Federal agencies to conserve these species and their habitats and ranges to the extent practicable. Section 4 of the ESA (16 USCA 1533) provides a listing process for species considered “endangered” (in danger of becoming extinct) or “threatened” (threatened to become endangered). The Secretary of Commerce, acting through NOAA Fisheries, is involved for projects that may affect marine or anadromous fish species listed under the ESA. All other species listed in the ESA are under USFWS jurisdiction. Section 7 of the ESA (16 USCA 1536(a)(2)) requires that all Federal agencies, in consultation with the Secretaries of the Interior and Commerce (acting through USFWS and NOAA Fisheries, respectively), ensure that their actions do not jeopardize the continued existence of species listed as endangered or threatened and protected or result in the destruction or adverse modification of the critical habitat of these species. Section 9 of the ESA (16 USCA 1538) prohibits take of a listed species. Section 9 (16 USCA 1538) compliance is applicable if the proposed action would result in the take of any listed threatened (if not subject to special rule) or endangered fish or wildlife species and such take is not authorized in a biological opinion issued by USFWS or NOAA Fisheries. Section 10 of the ESA (16 USCA 1539) authorizes the conditions for the USFWS or NOAA Fisheries to issue a permit for incidental take of a listed species when there is no other Federal agency involved. See 16 USC 1531 et seq. federally covered species.

fish actions

Operational tools available to the biologists to protect threatened and endangered fish near the Delta Pumps. Tools include closing the Delta Cross Channel gates, reducing pumping, shifting pumping between the SWP and the CVP, and increasing inflows to the Delta.

fish entrainment

The incidental capture and loss of fish during water diversion.

fish group

Federally listed and proposed species identified by the USFWS and NOAA Fisheries in the programmatic biological opinions for which programmatic CALFED actions would not cause jeopardy and/or adversely affect

	designated critical habitat. A classification that is based on ecological behavior of the included fish species. Two fish groups are evaluated in the MSCS: anadromous fish and estuarine fish.
fish salvage	The process of screening fish at the south Delta export facilities and physically transporting them by truck to release in other parts of the Delta. This generally results in higher fish mortality than a more conventional fish screen where screened fish simply return to the river and continue downstream. Fish salvage is required at the existing export facilities since there is no flow continuing downstream to carry the fish away.
fish screens	Physical structures placed at water diversion facilities to keep fish from getting pulled into the facility and dying there.
fixed assets	The annual acquisition of 150,000 acre-feet (AF) of water from willing sellers in the Export Service Area and at least 35,000 AF of water from willing sources upstream from the Delta (or their functional equivalents), as required by the CALFED ROD. Both the Flexible Alternative and the Fixed Alternative include “fixed assets”.
flexible operations	Operation of the CVP/SWP Delta export pumps that would allow reducing export pumping at times critical to fish and increasing export pumping at other times. Flexible operations would allow higher or lower export rates and export-inflow ratios than prescribed by the 1995 Water Quality Control Plan. Pumping could deviate from currently permitted rates seasonally and on a real-time basis in response to Delta flows and fish distributions.
fry	Small adult fish, especially when in large groups.
functional equivalence	The volume of water needed to replace a like quantity of exports forgone as a result of a SWP or CVP Delta export pumping reduction. The concept provides EWA greater purchase strategy flexibility that is responsive to varying hydrologic conditions, fish needs, fluctuating Delta capacity, water sources, and ultimately asset maximization.
habitat conservation plan	A comprehensive planning document pursuant to Section 10 of the Federal ESA (16 USCA 1539(a)(2)(A)) that is a mandatory component of an incidental take permit issued pursuant to Section 10 (16 USCA 1539(a)(1)(B)).

habitat enhancement, enhance	To improve degraded habitat. Management actions that enhance habitat do not result in increasing the extent of habitat area.
habitat protection, protect habitat	To maintain the existing extent and quality of habitat.
habitat restoration, restore habitat	To create habitat. Management actions that restore habitat result in increasing the extent of habitat area.
hold-back period	Generally occurs April through June during which time normally released irrigation water would remain in reservoirs. Surface elevations in reservoirs would be higher than the existing conditions during hold-back periods. Rivers would convey less water, yet comply with temperature and flow requirements.
hydrograph	A chart or graph showing the change in flow over time for a particular stream or river.
impingement	Occurs when fish are trapped against the outer surface of a fish screen.
incidental take	“Take” that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity.
incidental take permit	Federal exception to Section 9 of the Federal ESA (16 USCA 1538); a permit issued pursuant to Section 10 of ESA (16 USCA 1539(a)(1)(B)).
In-Delta Storage	Water storage within the Delta by converting an existing island to a reservoir. The storage can help facilitate flexible operations of the export pumps by allowing export of stored water when critical fish species are present in the south Delta.
indirect mortality	The indirect fish losses from operating the Delta Cross Channel and south Delta export pumps. For example, fish diverted from the Sacramento River into the central and south Delta experience higher mortality through increased stress, small agricultural water diversions, poor water quality, predation, reduced shallow water habitat for fry, higher water temperatures, and higher residence times. This indirect mortality is a portion of the total fish mortality resulting from operation of the export pumps (see direct mortality).
instream flows	Year-round flows in rivers and streams.

invertebrate	An animal that lacks a backbone or spinal column.
jeopardy	Situation in which an action is likely to threaten the continued existence of a species listed as endangered or threatened under Federal or State ESAs.
Joint Point of Diversion	SWRCB Water Rights Decision 1641 refers to the ability of the SWP and CVP to utilize each other's point of diversion. Allows the SWP and CVP to pump water for each other during times of restriction for one set of pumps.
Level 4 Refuge Supplies	The Central Valley Habitat Joint Venture defined four levels of refuge water supplies: existing firm water supply (Level 1), current average annual water deliveries (Level 2), full use of existing development (Level 3), and to permit full habitat development (Level 4). CVPIA Section 3406(d) committed to providing a firm water supply through long-term contractual agreements for Level 2 refuges.
listed species (CESA)	Species or subspecies declared as threatened or endangered by the CDFG in 14 CCR Section 670.5.
listed species (ESA)	Species, including subspecies, of fish, wildlife, or plants federally listed at 50 CFR 17.11 and 50 CFR 17.12 as either endangered or threatened, or listed at 14 CCR Section 670.2 and 14 CCR Section 670.5 as threatened or endangered.
"maintain"	Also known as "m", a CALFED goal assigned to species expected to be minimally affected by CALFED actions. The MSCS requires that CALFED actions' adverse effects on species in this category be avoided, minimized, or compensated for. The avoidance, minimization, and compensation measures for these species may not contribute to their recovery, but would ensure that CALFED actions do not degrade the status of the species or contribute to the need to list the species. CALFED is also expected, where practicable, to take advantage of opportunities to improve conditions for these species.
Management Agencies	USFWS, NOAA Fisheries, and the CDFG.
mitigation	To moderate, reduce, or alleviate the impacts of a proposed activity; including: (a) avoiding the impact by not taking a certain action or parts of an action; (b) minimizing impacts by limiting the degree or magnitude of the action and its implementation; (c) rectifying the impact by repairing, rehabilitating, or restoring the

affected environment; (d) reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and (e) compensating for the impact by replacing or providing substitute resources or environments.

Monterey Agreement

Amendment made to contracts for State water as a result of the Monterey principles. This amendment established a number of water management tools including: 1) the turn-back pool, 2) transfer of water amounts in Table A, 3) storage of water outside of the Export Service Area, and 4) flexible management of SWP terminal reservoirs.

Multi-Species Conservation Strategy

Identifies a list of species for which the CALFED Program and the ERP have responsibilities related to: (1) recovery of the species, (2) contributing to their recovery, or (3) maintaining existing populations. Serves as the platform for compliance with the Federal ESA, the California Endangered Species Act (CESA), and the State's Natural Community Conservation Planning Act (NCCPA).

National Environmental Policy Act

Federal legislation establishing the national policy that environmental impacts will be evaluated as an integral part of any major federal action. Requires the preparation of an environmental impact statement (EIS) for all major federal actions significantly affecting the quality of the human environment.

Natural Community Conservation Plan (NCCP)

A plan prepared pursuant to the NCCPA that identifies and provides for the regional or areawide protection and perpetuation of natural wildlife diversity, while allowing compatible and appropriate development and growth.

NCCPA

The Natural Community Conservation Acts, a California law providing for regional or areawide planning for natural wildlife diversity and compatible and appropriate development and growth. (See Fish and Game Code Section 2800 et seq.)

NCCP community

Refers to both habitats and fish groups addressed in the MSCS. The MSCS provides the information for a programmatic NCCP for 20 natural communities, encompassing 18 habitat types and two ecologically based fish groups.

NCCP community goals

CALFED goals developed by the MSCS team and ERP staff for NCCP communities.

NCCP community prescriptions	MSCS targets that describe the future expected changes in extent and condition of MSCS NCCP communities with full implementation of CALFED. If NCCP community prescriptions are achieved, CALFED goals for NCCP communities will have been met.
NCCP habitat	Broad habitat categories, each of which includes a number of habitat or vegetation types recognized in frequently used classification systems. The MSCS includes an evaluation of 18 NCCP habitats.
non-native species	Also called introduced species or exotic species; refers to plants and animals that originate elsewhere and are brought into a new area, where they may dominate the local species or in some way negatively impact the native species environment.
obligate species	A species limited to a restricted environment, such as a wetland.
Operating Principles Agreement	EWA agencies' specific methods for asset acquisition and management.
operational flexibility	Central Valley Project and State Water Project operational measures dedicated to the EWA that include: 50 percent of the SWP export pumping of (b)(2) water and ERP water from upstream releases; 50 percent of SWP excess capacity subsequent to Joint Point of Diversion provisions; Export/Inflow relaxation; and exclusive use of 500 cfs increase in authorized Banks Pumping Plant capacity (between 6,680 and 7,180 cfs) July through September. These measures increase the ability to store and carry over assets.
overdraft	The condition, over the long-term, when more water is withdrawn from a groundwater basin than is recharged.
perennial plant	A plant that grows for more than one season; it overwinters in a dormant condition and resumes growth the following season.
Phase I	First phase of CALFED. During Phase I, begun in May 1995, the problems of the Bay-Delta were defined and work began on developing a range of alternatives to solve them. Phase I was completed by CALFED in August 1996.
Phase II	Second phase of CALFED. This is CALFED's current phase, that will end at the time of the Final Programmatic

	Environmental Impact Statement/ Environmental Impact Report (PEIS/EIR). In Phase II, CALFED is developing a Preferred Program Alternative, conducting comprehensive programmatic environmental review, and developing the implementation plan focusing on the first 7 years (Stage 1) following the Record of Decision (ROD).
Phase III	Third and final phase of CALFED. During Phase III, implementation of the Preferred Program Alternative will begin. Implementation will continue in stages over many years. This phase will include any necessary studies and site-specific environmental review and permitting.
practicable	Capable of being put into practice, done, or accomplished using reasonable means and costs.
prescriptive measures	Water quality standards and operational criteria that protect various beneficial uses of water, e.g., instream flow recommendations, temperature requirements, pumping thresholds based on the ration of exports to inflow, salinity standards, and Delta outflow requirements.
Project Agencies	Bureau of Reclamation (Reclamation) and the Department of Water Resources (DWR).
Projects	Combination of State Water Project and Federal Central Valley Project.
program area	The area where EWA assets are acquired and managed.
pumping reductions	Operational changes at the Delta CVP/SWP facilities that cause a reduction in Project south-of-Delta water exports beyond the baseline level of fisheries protection established in the CALFED ROD.
raptor	A bird species in the order Falconiformes such as hawks, eagles, kites, and falcons, and in the order Strigiformes (owls).
“recovery” (CALFED goal)	Also referred to as “R”, a CALFED goal assigned to evaluated species whose recovery is dependent on restoration of the Delta and Suisun Bay/Marsh ecosystems and for which CALFED could reasonably be expected to undertake all or most of the actions necessary to recover the species. The term “recover” means that the decline of a species is arrested or reversed and threats to the species are neutralized and that the species’ long-term survival in nature is therefore assured.

recovery (ESA)	The process by which the decline of an endangered or threatened species is arrested or reversed, and threats to survival are neutralized, so that long-term survival in nature can be ensured.
riparian	The strip of land adjacent to a natural watercourse such as a river or stream. Often supports vegetation that provides important wildlife habitat values when a complex forest structure is present and important fish habitat values when vegetation grows large enough to overhang the bank.
riverine habitat	Habitat within or alongside a river or channel.
San Luis low point	The low point is the summertime seasonal lowest level of San Luis Reservoir. The low point problem occurs when the volume of water in the reservoir drops to approximately 300,000 acre-feet, the point at which algal blooms can cause water quality problems for urban water users that receive supplies, especially Santa Clara Valley Water District.
secondary benefits	Implementation of EWA indirectly augments instream flows and enhances Delta outflows.
Section 7	Section 7 of the Federal ESA (16 USCA 1536) deals with the requirement that Federal agencies consult with the USFWS or National Marine Fisheries Service to ensure that any action authorized, funded, or carried out by a Federal agency is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of designated critical habitat of such species.
Section 9	Section 9 of the Federal ESA (16 USCA 1538) defines prohibited acts, including the “take” of any listed species without specific authorization of the USFWS or NOAA Fisheries.
Section 10	Section 10 of the Federal ESA (ESA) (16 USCA 1539) defines exceptions to acts prohibited by Section 9 of ESA (16 USCA 1538) for nonfederal entities (e.g., states, local governments, private individuals).
sensitive species	Listed species, species that are candidates for listing, and other species that have been designated as species of special concern by Federal or State agencies or scientific organizations (see “special-status species”).

service area	All of the areas that receive water from SWP or CVP projects.
Smelt	A young salmon that has assumed the silvery color of the adult and is ready to migrate to the sea.
source shifting	Tool for EWA to borrow scheduled water from project contractors for a fee, returning the water at a later date.
special-status species	Species that are in at least one of the following categories: listed as threatened or endangered under the Federal ESA; proposed for Federal listing under the ESA; Federal candidates under ESA; listed as threatened or endangered under the CESA; candidates under CESA; plants listed as rare under the California Native Plant Protection Act; California fully protected species or specified birds under various sections of the California Fish and Game Codes; California species of special concern; California Native Plant Society List 1A, 1B, 2, or 3 species; or other native species of concern to CALFED.
species	Species of fish, wildlife, or plants, any subspecies of fish, wildlife, or plants, and any distinct population segment of vertebrate fish or wildlife that interbreeds when mature. The CESA also includes any native species or subspecies of bird, mammal, fish, amphibian, reptile, or plant.
species goal	CALFED goals developed by the MSCS Team and the ERP staff for the evaluated species, termed “recovery”, “contribute to recovery”, and “maintain”.
species of concern	Species evaluated in the MSCS that could be affected by actions and are not listed as threatened or endangered under the Federal ESA; proposed for listing under ESA; candidates under ESA; listed as threatened or endangered under the CESA; candidates under CESA; plants listed as rare under the California Native Plant Protection Act; California fully protected species or specified birds under various sections of the California Fish and Game Codes; California species of special concern; or California Native Plant Society List 1A, 1B, 2, or 3 species.
species prescriptions	MSCS targets that describe the future expected changes in evaluated species’ habitats and populations with full implementation of CALFED. If evaluated species prescriptions are achieved, CALFED goals for evaluated species will have been met.

Stage	The height of the water surface above an arbitrarily established elevation.
Stage 1	The first 7 years of CALFED implementation following the ROD on the CALFED PEIS/EIR.
State-covered species	Evaluated species identified by CDFG in the programmatic NCCP determination that would be adequately conserved with the implementation of programmatic CALFED actions and conservation measures.
State Water Project (SWP)	A California State water conveyance system that pumps water from the Delta for agricultural, urban domestic, and industrial purposes. The SWP was authorized by legislation in 1951.
study area	The EWA EIS/EIR study area includes those areas of California that could be potentially affected by the EWA.
subsidence	The reduction in land elevation due to the compaction of soil, oxidation of organic soils, removal of underground fluids, or other mechanisms.
Table A	A tool for apportioning available water supply and cost obligations under the SWP contract. When the SWP was being planned, the amount of water projected to be available for delivery to the contractors was 4.2 million acre-feet (maf) per year. Table A lists by year and acre-feet the portion of the 4.2 maf deliverable to each contractor. The Table A amounts are not an indication of the SWP water delivery reliability, nor should these amounts be used to support an expectation that a certain amount of water will be delivered to a contractor in any particular time span.
take	Under the ESA, "To harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct" in regard to federally listed, endangered species of wildlife (16 USCA 1532[19]). "Harm" is further defined as an act "which actually kills or take threatened species injures". Harm may include "significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter" (50 CFR 17.3). Under the California Fish and Game Code, take is defined as "to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill" (California Fish and Game Code Section 86).

terrestrial species	Types of species of animals and plants that live on or grow from the land.
threatened species (CESA)	Any species listed as threatened under the CESA. Threatened species are native California species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that have been determined by the CDFG, although not presently threatened with extinction, to be likely to become an endangered species in the foreseeable future in the absence of special protection and management efforts. See California Fish and Game Code Section 2067.
threatened species (ESA)	Any species listed as threatened under the ESA. Threatened species are any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range (see 16 USCA 1532[19]).
Tier 1	Governed by regulatory commitments in Section VIII-B of the MSCS Conservation Agreement that defines the baseline amount of water required under the biological opinions, 1995 WQCP, and 800,000 AF of CVP Yield pursuant to the CVPIA Section 3406(b)(2).
Tier 2	EWA assets combined with benefits of a fully funded ERP. Serves as an insurance mechanism that would allow fish protection when needed without reducing deliveries to water users.
Tier 3	EWA assets beyond Tiers 1 and 2 that would be based upon commitment and ability of CALFED agencies to make additional water available, if needed.
Tracy Pumping Plant	The CVP export pumping plant in the south Delta.
turbidity	A cloudy appearance that results when excessive silt or other substances are in the water.
turn back pool	SWP contractors may sell unwanted SWP Table A amounts to other contractors through the “turn back pool”. Contractors not storing water in a given year can elect to participate in the annual turn-back pool of allocated but unneeded water. SWP contracts do not allow contractors to sell water for use outside their service area except through the turn-back pool.

turnout	Connection from CVP/SWP conveyance systems that distributes untreated water from the central delivery system to various entitlement holders
upstream storage	Any water storage upstream of the Delta supplied by the Sacramento or San Joaquin Rivers or their tributaries.
variable assets	Water made available each year through changes in Delta operations, i.e., Joint Point of Diversion, Export/Inflow Ratio Flexibility, 500 cfs SWP pumping increase. Water obtained by methods other than active acquisitions. The Flexible Purchase Alternative provides up to 195,000 AF of water through variable assets. The Fixed Purchase Alternative does not include variable assets.
vernal pool	Seasonally ponded landscape depressions in which water accumulates because of limitations to subsurface drainage and that support a distinct association of plants and animals.
Vernalis Adaptive Management Program	Science based management plan designed to determine and protect the survival and transport of salmon smolts through the Delta in relation to the flow of the San Joaquin River, SWP/CVP exports, and the operation of a fish barrier at the head of the Old River.
water managers	Any entity, Federal, State, or local, involved in decision making related to water supply, storage, release, sale, and use.
water transfers	Voluntary water transactions conducted under State law and in keeping with Federal regulations.
watershed	An area that drains to a particular channel or river, usually bounded peripherally by a natural divide of some kind such as a hill, ridge, or mountain.
watershed program area	The area that encompasses the watersheds of the CALFED Solution Area, but focuses on the watersheds of the San Joaquin and Sacramento Rivers, primarily those areas above major dams, and a portion of the upper Trinity River watershed.
wheeling	Use of Project facilities to pump and convey non-project water.
X2	The location (measured in kilometers upstream from the Golden Gate Bridge) of 2 parts per thousand total

dissolved solids. The length of time X2 must be positioned at set locations in the estuary in each month is determined by a formula that considers the previous month's inflow to the Delta and a "Level of Development" factor, denoted by a particular year. X2 is currently used as the primary indicator in managing Delta outflows. The X2 indicator is also used to reflect a variety of biological consequences related to the magnitude of fresh water flowing downstream through the estuary and the upstream flow of salt water in the lower portion of the estuary. The outflow that determines the location of X2 also affects both the downstream transport of some organisms and the upstream movement of others and affects the overall water operations of the CVP and SWP.